

**TECHNICAL MEMORANDUM NUMBER THREE  
AND  
TECHNICAL MEMORANDUM NUMBER FOUR:**

**FLORIDA BARRIERS TO  
STATION AREA DEVELOPMENT  
AND RECOMMENDED STRATEGIES  
FOR OVERCOMING THEM**

*Enabling Station Area Development in Florida:  
Towards More Cost Effective Rail Transit Investment*

for

Office of Public Transportation  
Florida Department of Transportation  
605 Suwanee Street (MS 26)  
Tallahassee, Florida 32399-0450



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## INTRODUCTION

The two previous technical memoranda in this project, *Enabling Station Area Development in Florida: Towards More Cost-Effective Rail Transit Investment*, introduced the subject of station area development, identified examples from transit systems across the United States, and produced an inventory of what, if any, development, is occurring at the 62 rail transit stations currently in place around Florida, and at the 14 stations that are either under-construction or soon will be. This technical memorandum identifies barriers to station area development and recommends strategies for overcoming them.

Barriers have been identified and classified into several categories. Within each of the categories, specific situations are cited. The ramifications of these situations for station area development are discussed. Strategies, tactics, and actions are recommended for overcoming these barriers. Barriers are conditions, policies, statutes, regulations and perceptions that hinder development around rail transit stations in Florida. It was the original intent of this study to focus on institutional barriers; in particular those government constrains, both formal and informal, that prohibit, preclude, constrain, or otherwise limit actions that could assist in carrying out development around rail transit stations. However, as the research probed more deeply into the issues associated with station area development, it became apparent that other factors beyond the impact of government were very important in the process.

Knowledge, or lack thereof, and perception about what station area development is, or isn't, and what impact it can have on the community adjacent to the rail station, have also emerged as critical elements in determining if development will go forward. Market is also very crucial to the implementation and on-going success of station area development. Much, if not most, of the development will be carried out by the private sector. Private sector investment, by its very nature, expects a profitable return on investment. This only happens if there is a market for what is being placed in the station area. Financing, is a third, essential, yet very complex component of the station area development process. Without financing, development will not take place. To secure funds to carry out development may well involve both public and private sector participants. Generally, public and private funding sources have quite different objectives. They also have different sets of constraints that may limit their options as to what they can support and carry out. Often their "rules" work against the collaborative kind of joint public/private sector participation that is so critical in moving a significant station area project forward.

Government is a major player in what happens at, or around, rail transit stations. The transit system is a public entity, and must adhere to rules applied to it by state or local statutes and ordinances, and

usually receives federal, and in Florida, state financial assistance. Accepting federal or state funds may also impose a set of constraints. Development of land around rail transit stations must also conform to local rules, regulations and policies. It is in local government that constraints exist as to the type and intensity of development that can be implemented. In Florida, the size and intensity of local development may also be subject to state growth management requirements and scrutiny. For development to proceed it must be acceptable and conform to both state and local requirements.

Barriers, and how to overcome them, have been grouped into five broad categories: 1. knowledge and perception; 2. market and location; 3. government rules and regulations; 4. public and private financing; and, 5. community vision and context.

Each of the broad categories is further sub-divided into a set of more specific barriers. For each barrier, one or more actions is proposed to overcome or circumvent the barrier. These actions range from educational and informational strategies, to re-examination of policies by key players, to legislative changes that allow things to happen in a different way than they have in the past. Some actions involve specific state or local government action. Others require forming collaborative relationships between partners from the public and private sectors. Still others call for a re-evaluation of the local community future by a committed citizenry.

What follows in the ensuing pages is an outline of action steps that are essential for overcoming various obstacles and barriers, and thereby enabling rail transit station area development in Florida. Within each of the categories barriers are explained, their importance noted and a set of actions identified. These actions can be considered as the “game plan” for getting station area development moving ahead in a manner that makes investment in rail transit more effective, and that contributes to the quality of life in those Florida communities that either have, are building, or considering, rail transit as part of their transportation system. The actions are presented as a series of recommendations. The recommendations are, in large part, the result of examination of the station area development process in cities across the U.S. where this topic has been successfully implemented.

## BARRIERS AND OVERCOMING THEM

Barriers to station area development are not confined to what transit agencies and other government entities can and cannot do. Perception and ignorance are also significant issues. Lack of knowledge and familiarity with this topic is a key problem to overcome--one that can best be done with education and dissemination of good information. Understanding what station area development is all about, and how it can contribute to the goals of a community, is very important. Some communities have a limited view of where they are going in the future. It is important that cities and towns look ahead and decide what they want to be like. Only then can they start to explore how they might get there. Other barriers are financial, both the ability to raise the needed money, and limitations on how it can be used. Still others are legalistic and institutional. These barriers limit the actions of both government and private individuals and businesses. Some barriers are purely the result of tradition and inertia, "We've always done it that way." Moving ahead with station area development requires thinking, "outside of the box."

The sections that follow group 16 recommendations into various categories. The recommendations propose various actions be undertaken, and by various actors--including government agencies, the private sector, professional and advocacy organizations, and individual citizens. They are based on observations and conversations with transit operators, local planners and developers, community leaders, government agencies, citizen and environmental advocates; and on first hand visits to many transit station area developments in a dozen cities across the land, including all of the existing transit stations in Florida.

The 16 recommendations include:

- Establishing an education and outreach effort to increase awareness of station area development.
- Collaborative efforts by local government and business to learn about successful station area development across the country and sharing the information with the local community.
- Involving a broad spectrum of the community in station area planning.
- Developing a package of materials about each station area to facilitate good investor decision-making.

- Assisting potential station area businesses in gathering information for a thorough market analysis.
- Modifying Concurrency requirements to allow for greater flexibility in the use of public transportation, transportation demand management, and intelligent transportation systems technology.
- Incorporate transit station area development as a category for inclusion by DCA in its review of local Comprehensive Plans.
- Action by local governments to provide for special transit station area zoning.
- Ensure that adequate access linkages are put in place between transit stations and adjacent neighborhoods.
- Allow transit agencies to purchase land and assemble property adjacent to transit stations for development and redevelopment purposes.
- Allow for greater flexibility in the use of state and local government, and transit agency funds, to assist station area development.
- Allow transit agencies to issue revenue bonds to assist in station area development.
- Allow for tax moratoriums on new development at transit stations in order to encourage private sector investment.
- Encourage lending institutions to recognize and support the viability of mixed use development.
- Initiate and carry out a broad-based Community Vision for each metropolitan area in Florida that includes a transportation component.
- Encourage locating public facilities at transit station sites.

## KNOWLEDGE AND PERCEPTION

Station area development is not a widely known concept in Florida. Even among the transit and urban planning communities there is limited familiarity and experience with the subject. Mention "transit-oriented development," or "station area development" outside of transportation, planning or architectural groups and you will be met with blank face responses. Few Floridians are aware of what these terms mean. However, many are concerned with urban mobility, congestion, and transportation-related issues which affect the quality of life in our metropolitan areas. In addition to being un-aware of what "station area development" is, they are also unfamiliar with its importance as a powerful tool in helping to solve some of these urban issues.

When the subject is brought up at open public meetings on planning of urban rail transit, those citizens who are aware of the concept often express a perception that station area development is exclusively offices, retail and high density residential jammed together in multi-story, high rise buildings. While some may see the benefits in this, others react with repugnance and horror. The rich variety of possibilities of varying compositions and mixes of uses, densities, and architectural styles, is often overlooked. A common perception, among those that do know the term, is that this is high density, urban congestion, that flies in the face of what they see as desirable in Florida. This perception may be the result of personal life experience of having lived in, or traveled to, New York, Philadelphia, or Chicago, and seen in place what they do not want to be brought to Florida metropolitan areas. Few Floridians are aware of the varied, positive aspects of station area development which have evolved in Atlanta, Dallas, Portland, Sacramento, San Diego, San Jose, Washington, D.C., and other communities where rail transit has been put in place in recent years.

Unfamiliarity with the concept is not limited to the general public. Those in Florida most likely to receive immediate economic benefits from locating a new activity or business near a rail transit station are also without much knowledge about the concept or how it might benefit them. Developers, entrepreneurs, investors, business people, store owners and operators in this state, usually do not have much experience with the advantages of transit-related development or redevelopment. There are some exceptions to this, particularly in the Miami area where station area development has been in place at some Metrorail and Metromover locations for a number of years. A few developers and other business persons may have been involved with projects in other states, or are aware of them.

Rail transit is currently a part of the metropolitan transportation system in three southeast Florida counties (Palm Beach, Broward, and Miami-Dade), and in Jacksonville. By late 2001 it will be part of the system in Tampa when the Streetcar line linking Ybor City with the Channelside District and the south end of Downtown Tampa is completed. In spite of political setbacks in Orlando and Tampa for proposed light rail projects, these may well be revisited in the future. The 40 stations in Miami, 18 stations along the Tri Rail system, the 8 stations in Jacksonville, and the 12 stations to be built in Tampa, provide considerable opportunity for linking rail transit and development or redevelopment to enhance community life.

***Recommendation 1. FDOT and DCA should embark upon an education and outreach effort, in collaboration with local transit, planning, and community development agencies, to increase awareness about transit station area development. This effort should emphasize how transit and development can work together to enhance the quality of urban life. It should also focus on how station area development can be a win-win for investors, the transit agency, and station neighborhoods.***

FDOT and DCA are the responsible agencies for funding and/or approving transportation planning and investment, and community planning processes and efforts across Florida. Transit has been identified as a component of growing importance in Florida's transportation future. DCA is concerned with the reasonableness of local planning efforts and their commitment to a number of goals including environmental quality, urban livability, and citizen access to housing, jobs and needed services. Transit can be a powerful tool in helping achieve these goals. Station area development is one point where FDOT and DCA have a common nexus.

These two agencies should collaborate to develop a program to educate local communities about the benefits of station area development. This collaboration should include the following actions:

- Establish a state clearinghouse of information on station area and transit-oriented development. This would include a depository of information: i.e., publications, films, slides, videos, etc. collected globally, but with a U.S. emphasis, that would be available on a loan basis to interested agencies, parties and individuals.
- Prepare and distribute a set of materials on station area and transit-oriented development that would give an objective view of the topic, describe the role of various players, and provide an outline of the process involved in developing successful projects.

- Make available a set of experts on this subject, either agency staff or independent resource persons, who would be available to share their expertise with local communities.
- Establish a web site that would include a list of key contact persons at state and local government agencies, and from the private sector, who have been involved with successful station area development. The web site would also carry news items about station area development issues as they arise in Florida, and reports on specific development projects elsewhere.

***Recommendation 2. Transit agencies planning to construct rail transit should solicit the cooperation and collaboration of their local planning, economic development, and other agencies, and of local business and community leaders to learn about successful station area development in other cities across the country. They should bring what they have learned to their own community and share it with local citizens.***

Applying station area development in Florida is not “reinventing the wheel.” Although the concept is new to many political and business leaders, and most citizens, it has been applied very successfully in numerous communities across the county; and at selected stations in Florida--primarily on the Metrorail system operated by MDTA. Reading about the subject, looking at photographs in a book, or watching a video or slide presentation, can provide a basic sense of what station area development is all about. However, a first hand look with a chance to observe what is actually there and ask questions of those involved, can be a much more meaningful learning experience. There is much to be said for the adage, “seeing is believing.”

A variety of steps should be taken to familiarize local business and community leaders with station area development. These actions should be taken in communities that currently have rail transit and are pushing ahead with station area projects; and they should be underway where rail transit is being introduced into a community for the first time. The initiative for these steps should fall to the transit agency. However, they should invite the cooperation and collaboration of other agencies and organizations concerned with planning and development. This should include local business organizations, i.e. Chamber of Commerce, Downtown or Neighborhood development organizations; community improvement groups, etc. Among the actions that should be considered are:

- Holding special workshops on the topic of station area development with invited speakers-- i.e, from the FDOT/DCA Clearinghouse, research centers, other transit or development agencies that have relevant experience to share, a developer who has had a successful project, a neighborhood leader from another city to tell how it contributes to that community. The

workshops should focus on both opportunities and process. They should include examples of a wide variety of development mixes, densities, and architectural styles. The discussion should include costs and financing alternatives. Follow up meetings, and perhaps even the creation of an organization to further the issue, should be outcomes of an initial workshop.

- Carry out a visit to a community which has carried out station area development successfully. The city selected should be as similar as possible in its economic, demographic, and geographic conditions to the Florida city that is considering station area development; or it should be a city that has achieved certain goals that make it highly desirable to emulate. Those going on the trip should include a wide spectrum of community leaders, agency personnel, members of local organizations concerned with the community's vision and future, and interested citizens. A condition of going on the trip should be a willingness to share their experience with others upon their return.

***Recommendation 3. Involve as broad a spectrum of the community as possible in station area planning. Transit agencies planning for rail should take the initiative to provide a good forum for public discussion; and should encourage participation in this discussion by elected officials, business and other community leaders, land owners and residents of station neighborhoods—all stakeholders in the quality of community life.***

Station area development is about planning for the future. It is absolutely essential to involve those who will share most in that future. Those living nearby, riding the transit system, considering a business investment in the area nearby, responsible for the public investment, or concerned with the overall well-being of the city, need to have an opportunity to discuss what is being planned for a station area. Maintaining an open process is critical; it makes common sense and will pay dividends in terms of contributing to the support for the transit investment--an investment that usually requires some tax investment and therefore impacts those in the immediate vicinity of the station, if not all across the metropolitan region. The effectiveness of having an open process will be enhanced by having followed Recommendations 1 and 2 before carrying out planning for each station.

The open planning process should include the following:

- A series of informational meetings covering the proposed or planned rail transit system or line where interested and affected parties can get an overview of the concept and preliminary plans. Having a basic understanding of how the system fits together, and what other parts of the metropolitan area are linked together, can help clarify the perspective of a particular local station area. Looking at the big picture first can make it easier to get discussion going about

what the possibilities might be in the local neighborhood at its station site. Rather than conduct a meeting for each proposed station site, it is probably more effective to bring together two or three adjacent stations. This will make it easier to identify common concerns that may extend across neighborhoods. There is also an advantage in that the richness of mixing neighborhoods together may increase the flow of ideas, and lead to a greater sharing of creativity.

- A set of workshops need to be conducted for planning each of the station areas. While the transit agency should take the lead in this, it also needs to involve the local planning agency, neighborhood associations, economic development agencies, housing authorities, street and road agencies, schools, libraries, public parks, and other government and public agencies with facilities in the area. Co-sponsorship of the workshops with the local planning agency and/or neighborhood association is a good strategy because it indicates broad interest and sensitivity to local concerns. Local business owners and residents need to be invited to attend. The goal is to maximize the input opportunity of the station area stakeholders. These meetings should have some structure that would include presentations by planners, architects and engineers on the transit agency concepts and plans. However, it may be highly desirable early in these meetings to give citizens a chance to voice their ideas about what they want--or don't want--in the area. The workshops also provide an opportunity for those proposing new development, or redevelopment, to test the reaction of those living in the area. Bringing in representatives of the local community who have traveled and seen station area development elsewhere, or bringing in someone from another community that has been involved or affected by station area development, can also be useful.



## MARKET AND LOCATION

Rail transit station sites are specific geographic locations. Developing these station areas by attracting new activities there is what this concept is about. Development requires investment. If that investment is to come from the private sector, the new activity must be able to produce a profit. Therefore it is important to select activities for which there is a market. The activity may be a flower shop, dry cleaners, or convenience store that serves the surrounding neighborhood; but there must be a market for the activity. Apartments, town houses, and even compact, closely spaced single family homes can be elements of station area development if there is a market for additional housing in the metropolitan area. The same holds true for office space. The selling point for locating homes and offices at the rail transit station is that the trains provide good access to other places in the community. Residents living near the station can get to work or shopping without having an automobile. Employers can offer their workers the possibility of getting to jobs by using transit--perhaps saving the employee the cost of a second automobile; and saving themselves money by not having to build so many parking spaces. Public officials may decide to locate a community-wide facility--one that draws upon the entire area as its "market"--like a convention center, sports arena, or performing arts center at a rail transit station site. The more attendees that are able to get to an activity at one of these facilities on transit, the less demand there will be for parking facilities; roadway and street congestion will be lowered.

The successful location of any activity at a station area development site requires a thorough understanding of what the market is for the proposed activity. For the investor in a small business, this means obtaining good information about the neighborhood around the station. For someone planning to locate an activity that may draw upon other areas of the city, it may require having that same information for the area around several other stations, or the immediate neighborhood..

*Recommendation 4. Transit agencies, in collaboration with local planning and economic development agencies, should prepare a package of materials about the characteristics of each station area in order to facilitate good investor decision making. Such material will also be useful to support the planning process and be an important tool in the overall strategy of encouraging higher density use in rail transit corridors. Where neighborhood desires show a preference for maintaining the status quo at a station area, the preparation of an inventory can be helpful in guaranteeing that existing conditions are maintained.*

Accurate, reliable information is essential to understanding both the unique character of each station area, and what the opportunities might be for new activity--if that is a desired option on the part of those who live and/or own businesses in the adjoining neighborhood. Local planning agencies, the

transit agency, tax appraisers and tax collectors, the U.S. Bureau of the Census, state and local highway agencies, state and local agencies that monitor environmental conditions, and others, have a vast amount of information on our urban areas. However, obtaining that information for a specific station site, requires a visit to numerous sources of information. Pulling information together and presenting it as a single source for the station area will facilitate the planning process, allow for better understanding of the neighborhood by those who live, work and play there, and will enable investors in a new business or activity to make better decisions. This information will also be useful to public officials and others involved in the allocation of public resources, and in attaining community goals including social justice.

Several cities have conducted this type of inventory of station areas for a variety of purposes. Marketing development opportunities is one important goal of packaging the material at the station level. Sometimes this has been aggregated into a system-wide collection. Tri Met in Portland, Oregon has done this for the two light rail lines it has built over the past decade and a half. Technical Memorandum Number Two: Inventory of Florida Station Development Sites and Opportunities, in this current study for the Florida Department of Transportation, is another example of this type of inventory. Information is usually collected for a buffered area ranging from 1/4 to 1/2 mile in radius around the transit station. Station area inventories should include a variety of information, selected from the following mix of items:

- A map and/or aerial photograph of the station area, to show location of the major features including rail lines, bus routes, streets, buildings, and vacant areas.
- Population of the area, although obtaining an accurate count is difficult.
- Demographic characteristics of the population.
- Current and future land use maps.
- Property values, both land and buildings, in both map and tabular formats.
- Identification of major buildings and other landmarks.
- Description of the area--backed up by photographs.
- Map of age of buildings--older ones may be candidates for historic preservation, or potentially removable for new and higher uses.

- Inventory of vacant property.
- Other information as needed.

***Recommendation 5. Transit agencies planning for station area development need to assist potential businesses locating at station sites in obtaining the needed information for a thorough market analysis. To be most effective this will require collaborative efforts with local planning and economic development organizations.***

Many businesses in Florida will be breaking new ground when they choose to become part of a station area development. It is very important that they survive and flourish. Because of the access that a rail transit station provides to a larger segment of the community, and the flow of people through the station, the market area may be somewhat different than that of a traditional location that does not offer the advantages of the transit site. This condition exists for all new investment activity that may occur around a rail transit station--whether it be a convenience store, restaurant, apartment or condominium complex, or an office building. This is less of a hazard for a firm that is from another state, or perhaps even a south Florida location, that is experienced in station locations. For most Florida rail transit stations, developers or businesses selecting a nearby site will probably be unfamiliar with the market area configuration associated with rail transit locations.

In any case, the transit agency and others can assist the investor in obtaining essential market information that will result in a better business investment. Most businesses are very market-conscious. Recognizing and defining a market must be done within the overall context of what is happening in the metropolitan area for many businesses. As an example, the City of San Jose, California, conducted a major assessment of housing needs in the mid-1980s at the same time light rail transit was under-construction. The study identified a shortfall of 25,000 housing units over a ten year period. Builder's responded quickly to meet the need. Transit agency planners, working with city economic development professionals, successfully encouraged several developers to build at sites adjacent to rail stations. They were able to do so by making a marketing argument that sales and rentals would be facilitated by the access provided by the new rail service. By 1995, nearly 10,000 new dwelling units had been built within 1/4 mile of the light rail line in San Jose. In a similar manner, transit and planning agencies have assisted businesses of all types in locating near transit stations by helping provide input into market analysis. This assistance has included:

- Providing information on how to approach the analysis of transit station area locations vs more traditional sites not in proximity to transit.

- Providing contacts with similar types of business in transit station area locations in other cities.
- Identifying firms and/or agencies that carry out the type of analysis that is needed by a business considering locating at a transit station site.
- Identifying data resources within the local area that might be used in conducting the market analysis, including demographic profiles of transit riders.

## GOVERNMENT RULES AND REGULATIONS

Government rules and regulations apply significant constraints to station area development in Florida. This is not necessarily by intent. Rather it is the result of other actions that are embodied in state law or local ordinances and regulations that limit possibilities and discourage opportunities for station area development.

Florida is a Growth Management state, and the legislation that has established growth management regulations recognizes the importance of providing adequate transportation infrastructure to meet the needs that new development generates. This is incorporated into the concept of “Concurrency.” Concurrency is embodied in provisions of Florida’s Growth Management Act and requires that the impact of new development on transportation be mitigated by providing additional roadway capacity. In order for development to proceed, a commitment must be secured from the developer and/or a local government agency to carry out the needed capacity improvements “concurrent” with the development. Transportation capacity improvements are defined as roadway improvements, although municipal governments can request and get an exception for certain development if transit is present.

Local land use planning and zoning in Florida, consistent with traditional practices that have evolved in the same manner all across the country, provides largely for separate and distinct land uses. Separate spaces, or zones, are provided for distinct activities. Residential, commercial, office, public, industrial and a few other categories have produced preferred land use patterns that discourage mixing uses on the same piece of land. Most local zoning ordinances also limit the use of space by requiring minimum sizes for certain activities. This has been particularly effective in residential zoning where minimum lot sizes in most places have created lawn and garden space around most homes, and discouraged more compact housing.

This arena is one which requires significant action in order to facilitate and encourage station area development.

***Recommendation 6. Modify Concurrency requirements to allow greater flexibility in meeting transportation needs through the use of public transportation, transportation demand management, and intelligent transportation systems technology. Where bus and/or rail transit are present, or will be implemented with the proposed development, reduced roadway capacity and parking requirements should be allowed consistent with ridership targets for public transit.***

Currently, meeting the expanded transportation needs associated with new development projects is met by expanding roadway capacity to meet the expected growth in travel. Where transit is in place, or can be added as a transportation alternative, the demand for roadway capacity should be reduced in a proportional manner. The high capacity of rail transit in particular can be a significant offset for further roadway investments. This is especially critical since roadway capacity increases in urban areas require acquiring additional right-of-way. This can be financially expensive, and very disruptive of neighborhood social cohesion and economic viability.

To put the argument another way, the substitution of transit for roadway capacity can also allow for a greater concentration of development on the same piece of land. The reduced number of automobile trips generated by the new development can result in savings on adjacent roadway expansion, and on lowered demand for parking space as part of the development. Savings result both to the public sector which is funding roadway construction and maintenance, and to the private sector in terms of building and maintaining parking spaces.

A reallocation of impact fees from road to transit projects is also a requirement of implementing this recommendation. This reallocation should be proportional to the anticipated shift from automobile use to transit. It should be obvious that co-locating development and transit at the same site will have benefits to both the developer and the transit agency, assuming that the site is also accessible by pedestrians and automobiles. A growing number of developers across the country have become involved in transit station area projects. These projects range from medium and high density residential, to office space, to commercial retail, to a growing variety of mixed use projects. Transit agencies benefit from increased ridership, and from revenue streams resulting from leasing property at station sites, or from tax revenues associated with value capture as property appreciates.

The trade-off benefits of transit for roadway substitution in association with development is well-understood in a growing number of metropolitan areas around the country. Atlanta, Dallas, Denver, Portland, Sacramento, San Diego, San Jose, San Francisco, St. Louis, and Washington, D.C. all offer good examples (See Reference Materials and Useful Resources).

***Recommendation 7. Incorporate transit station area development as a category for inclusion by DCA in its review and evaluation of local Comprehensive Plans. Rail transit stations, intercity rail and bus terminals, local transit centers, and intermodal facilities, are worthy of consideration by local communities as they plan for the future.***

Transit station area development is a tool that can assist in economic revitalization and quality of life enhancement. While the major focus of this study has been on rail transit stations, and these are metropolitan phenomenon with urban and suburban locations, other station opportunities exist in smaller stations where intercity bus and rail services exist, or where local transit service has a central hub location. In a few cases intercity and local services have been brought together, and the potential exists for doing more of this. Part of DCA's responsibility is to assist smaller communities with the planning process. DCA has community quality of life improvement as a policy goal. These two can come together in projects which bring transportation modes together--and there is opportunity to use the station or multimodal terminal as a catalyst for renovating or upgrading the adjacent area; perhaps even providing a new focal point for redevelopment of a small urban community.

DCA, by incorporating the concept of station area development into its review of local comprehensive plans, can provide local communities with information on how this might work in their unique situation. FDOT can assist in this through the identification of resources that can be secured by the local community for the transportation portion of these facilities. Numerous examples can be seen from all across the country of the use of rail or bus stations, local transit centers, or intermodal facilities, that have aided communities in upgrading blighted or run down areas, or become new community centers. Florida has an excellent example in Ocala where an historic railroad station has been rehabilitated as an intermodal station with Amtrak, Greyhound, local transit, a police station and park. Other emerging projects exist along Tri Rail at West Palm Beach and at Boynton Beach.

***Recommendation 8. Local governments need to provide for special transit station area zoning. Transit stations create unique opportunities that are best utilized by special mixes of activities which produce unique land use combinations, and require densities to be economically viable that set them apart from more traditional zoning categories.***

Successful development around transit stations is usually a departure from traditional local patterns that have been defined by local planning and zoning efforts. Examination of transit station sites reveals that most are located in areas dominated by perhaps two or three land use types, and perhaps a handful of zoning categories. Some may be within an area that is a single land use, or even a single zoning category. The very nature of station area development is that the site now has potential access by a great many people--those riding the transit system can board or alight there. It is probably located on a major street that may be bordered by sidewalks, thereby allowing for automobile and pedestrian access.

The added accessibility that transit brings to the site translates into good potential for many activities: housing; office employment; retail that may be neighborhood, or corridor, or city-wide, in its market orientation; public facilities that are easily reached by a large segment of the community population. The accessibility advantage also increases the value of the land. This in turn requires a higher return on investment per unit of land. In order to justify the investment it is necessary to maximize the use of space. The most common way to do this is to raise the density possible on the station area land.

Station area land attracts uses that not only have a high return by unit of space, but also ones that have complementary relationships, or share an interest in a clientele that moves through the station to use transit. The result is an investor-driven desire for a mix of activities at a station site, although one use may dominate. For example, a suburban station site may be proposed that is dominated by moderate to high density housing, but have a handful of activities (i.e. news stand, flower shop, laundry and dry cleaners, day care center) serving not only the immediate housing development but also those passing through the station to and from homes further away or nearby work sites. A closer-in station site might have an office building, hotel and conference center, and supporting businesses (i.e. restaurant, car rental, office supply) as proposed uses. Realizing these activities may be possible under existing zoning in city center locations where a general "urban core" use designation may be in place. This type of designation usually allows considerable flexibility as to use and density, although elements of compatibility are required.

However, outside of larger central cities, it may be necessary to create a special "transit station area" or "transit development" category that can be overlain on the existing land use and zoning patterns to allow for the flexibility that station area development requires. Municipalities, and counties where transit station potential exists outside of incorporated communities, should proceed to adopt these special zoning districts for station area development. Among the conditions that should be incorporated into the zoning ordinance are:

- The station area zone should extend at least 1/4 mile, but probably no more than 1/2 mile from the station site.
- Mixed uses should be allowed, but compatibility of uses must be required within the zone, and permitted uses should be determined with input from the adjacent neighborhood.
- Densities adequate to insure a fair return on investment should be allowed, but adequate protection should be required to prevent development from overwhelming adjacent areas. A step down of densities should also be required to provide an appropriate transition to existing development beyond the station area zone.

Several Florida counties and cities have adopted special zoning categories associated with transit station area development: Miami-Dade and Orange counties; Orlando, South Miami, and Boca Raton. Other cities outside of Florida have also created special districts or zoning categories. Atlanta, Denver, Portland, Sacramento, San Diego, and San Jose are examples.

*Recommendation 9. Local governments, DCA, and FDOT should work together to ensure adequate linkages be put in place between transit stations and adjacent areas and activities. Numerous rail transit stations in Florida are separated from nearby buildings and activities by barriers or lack of easy access.*

Considerable development has taken place near rail transit stations on both the Tri Rail commuter rail and Metro Dade Transit Metrorail systems, yet it is difficult for transit riders to get to nearby work sites or shopping at several stations. Conversely, residents living in apartments and condominiums quite close to rail transit stations find no easy way of getting to the facility. The result is lower transit ridership at these stations than would normally occur if access were made easy.

A secondary impact is one of safety and security for those walking from the transit station to nearby office buildings, shopping centers, homes, etc. Getting to or from the station may require forging a path through junk or debris strewn vacant lots; risking cutting through heavy vehicular traffic on major arterials; or finding a circuitous route that may lead past abandoned or derelict buildings. Good sidewalk connections are conspicuously absent from several stations on both systems.

No direct pedestrian connections exist at the West Palm Beach Tri Rail station to office buildings, a hotel, and apartments to the west; nor at Golden Glades to apartment buildings to the southeast.

A particularly vexing problem exists on Metrorail where the line parallels South Dixie Highway for several miles. Metrorail stations are all on the west side of the highway. Passengers with origins or destinations east of the highway must cross six lanes of traffic at signaled intersections with considerable turning traffic. Only the Viscaya station has a pedestrian overpass. One of the most noticeable recent disconnects is at the South Miami station where a major mall opened directly across the highway from the station. Pedestrian access requires a five block surface sidewalk trip crossing two major arterials.

Actions recommended to meet the needs of good station access into neighborhoods include the following:

- FDOT, DCA, the transit agencies and local governments should work together with local citizens to identify access issues at all of the current rail transit stations in Florida. Once the

issues have been identified, solutions should be proposed, evaluated and implemented. Improved transit ridership, improved user safety, and enhanced development opportunities will result at existing stations.

- FDOT and DCA, in cooperation with local governments, should require adequate station area pedestrian access, as well as local transit connections, automobile and bicycle access, and parking at all new transit stations being planned.

***Recommendation 10. Transit agencies should be allowed to purchase land and assemble property adjacent to transit stations for development and redevelopment purposes. The acquisition should encompass more than what is needed for the station facility and adjacent parking, road, and pedestrian access. The agency should confine its role to assembling the property for development purposes, carry out necessary infrastructure and site improvements, but not act as a developer.***

One problem that deters station area development is the lack of readily available land in large enough parcels to be economically viable for justification of the private sector investment. Often land ownership is fragmented. Assembling several parcels to get one of sufficient size by normal processes of purchase through private sector acquisition can be long, complex, and expensive. If the transit agency could assemble parcels adjacent to the station, combine them into a single parcel, or re-plot them to provide parcels of proper dimension, then the potential for attracting investment to the station area increases.

Florida statutes, local ordinances, and transit agency by laws should be amended to allow transit agencies to acquire land around stations for purposes other than access or parking. These changes should also allow the agency to carry out limited improvements to these sites to make them more attractive to developers. Conditions imposed upon transit agency acquisition of a site should include:

- A competitive process should be used to solicit proposals for use of the site. Selection of the developer should be based upon both the bid price for the property (either direct ownership or long-term lease), and the proposed best use of the property as agreed upon by a multiple party review committee that would include the transit agency, local planning and economic development agencies, neighborhood representatives, and a knowledgeable financial institution.
- Property acquired should be adjacent to the station and only include contiguous parcels within 1/4 mile of the station.

- Improvements funded by the transit agency could include demolition of existing structures; site grading and preparation including drainage and utility relocations or improvements; closure, removal, or building of new roads and sidewalks; fencing and retention walls; and limited other improvements necessary to make the parcel or parcels marketable for development.

This recommendation is consistent with what is allowed by local governments to carry out economic development or revitalization efforts. For example, the City of Tampa has acquired numerous properties in the Ybor City area, consolidated parcels, and re-bid them for sale after determining the highest and best use and establishing a minimum price. Port authorities also have this power and have exercised it in several Florida cities. This strategy has also been used by other transit agencies outside of Florida to carry out large scale developments--notably in Atlanta and Washington, D.C.



## PUBLIC AND PRIVATE FINANCING

Station area development has evolved into an identifiable activity over more than three decades. Joint public and private use of station areas began with projects on the BART rapid transit system in the San Francisco Bay Area, and at WMATA stations in metropolitan Washington, D.C. in the 1970s. By the late 1980s the concept had spread to a dozen other new rail transit systems, and today station area development is part of almost all new systems being built, or where extensions of existing ones are being put into place, or are planned.

The earliest tradition was characterized by a fairly strict separation of financing. Public funds available from federal, local, and somewhat later, state governments, were limited to use for only those portions of the station area that were directly related to rail service, or connecting bus transit, or automobile access and parking and sidewalks for the rail station. Investments in buildings, parking lots, access, and landscaping that were for private use could only be paid for from private sector funds. As station area development has become more widespread the complexity of what is "public" and what is "private" interest has increased.

Government-- particularly the federal government--and transit agencies and local governments, have recognized that considerable public benefit accrues from transit station area development. Perhaps most importantly, transit ridership increases. Revenue from tenants and from real estate sales reduces the need for tax expenditures. Fewer automobile trips resulting from increased transit use, and reduced trip chaining where goods and services are available at a transit station, mean less congestion and improved air quality. The importance of station area development can be seen in the Federal Transit Administration (FTA) and the U.S. Environmental Protection Agency joint projects that stress the importance to urban quality of life. FTA has created a "livable communities" grant program to support transit station area development. TEA-21 has expanded the use of federal transportation funds to allow local governments and transit agencies greater flexibility in the use of transportation planning money, and allowed the use of transportation dollars to assist redevelopment efforts in certain ways. This flexibility needs to be extended to state and local funds in Florida.

***Recommendation 11. Allow for greater flexibility in the use of state and local government, and transit agency funds, to assist station area development in Florida. Current limitations on the use of these funds makes the implementation of development or redevelopment projects more difficult.***

Local transit agencies are funded from a variety of sources: federal and state grants for capital assistance; state grants for operating assistance; local funds from gas taxes, ad valorem property taxes, or sales taxes. Local taxes may be either from dedicated sources, or from allocation of general funds by county and municipal governments. The amount of dedicated sources is also determined by elected governments; although options also exist for public referenda on some taxes.

The use of these funds is largely limited to operating and capital costs, including administration and planning. Rolling stock (buses, vans, and trains), maintenance facilities and equipment, stations and shelters, signage, right-of-way acquisition, and construction of track or bus ways, are all eligible costs. Land for station sites, appurtenant parking lots, and road and pedestrian access improvements are also allowed. Acquiring land by the transit agency at the station site for purposes other than transportation uses is currently prohibited.

Amending state law, local ordinances, and transit agency charters, to allow for use of state and local transit funds to acquire land and carry out site preparation work for station area development purposes by a to-be-determined third party, would facilitate more development initiatives. This would also put the transit agency in a better position to create additional ridership, and to meet other community goals that transit can help accomplish. Conditions and limitations as proposed for Recommendation 10 should also apply here.

***Recommendation 12. Allow transit agencies to issue revenue bonds to assist in station area development purposes. Bonds would be paid back from lease or sale of station area property.***

Another strategy for carrying out station area development by transit agencies would be to allow them to issue revenue bonds pledged against revenues generated by the development. These revenues would come to the transit agency as either long term lease payments, or as one-time sale proceeds. The bonds would be used to acquire land specifically for development purposes, and to carry out basic site development infrastructure and grade improvements necessary for placing the proposed development(s) on the property.

This approach has the advantage of addressing concerns with use of public funds collected for transportation purposes to fund projects that may be perceived by some as totally unrelated to transportation. It also has the advantage of placing the agency in more direct control by not being obligated to another government agency or political body for a funding allocation to carry out the station area development project.

Precedent exists for this approach in Florida statutes that allow local governments to issue bonds for redevelopment purposes with repayment from rents, sale, special assessments, or general revenues. The same conditions as proposed in Recommendation 10 are also suggested for inclusion in this recommendation.

***Recommendation 13. Allow for tax moratoriums on new development at transit stations in order to encourage private sector investment. This may, or may not require, changes in local ordinances; but it will require cooperation and consent from local government taxing authorities.***

Developers may be reluctant to carry out station area development because they are unfamiliar with the concept, wary of the potential benefits that result from a location with transit service, or are concerned about the viability or volatility of the surrounding neighborhood. They want to minimize risk and maximize return on investment. In order to attract them into new ventures in a new setting it may be necessary to offer some incentives. Packaged parcels and improved site infrastructure may not be enough for developers to make a commitment to a new venture. By providing a moratorium on ad valorem property taxes for a certain specified period, usually an initial start up of five to ten years, a possible development project should be more attractive to developers and their investors.

Achievement of this recommendation requires a cooperative agreement between the transit agency and local government taxing authorities. The trade off for granting a tax moratorium is between the loss of immediate tax revenue and anticipated longer term gain through increased sales, new jobs, and other revenue streams that may result from the new development. Ample precedent exists for providing tax relief to attract development or redevelopment. It is a tool that has been used by many local governments to attract new business into a community. Applying the concept to station area development can strengthen the hand of transit as a growth management and economic development tool.

***Recommendation 14. Encourage banks and other financial institutions to recognize the viability of mixed use development. Explore ways of minimizing lending institutions concern with risk associated with new ventures that involve co-ownership of real property.***

Station area development projects involve complex property patterns and relationships. In mixed use developments, residential, office, and commercial uses, in various permutations and combinations, may share the same site, or even the same building. Most development requires financial backing in terms of loans from banks or other financial institutions that provide the capital to carry out the project. Land and/or buildings become the collateral for these loans. Identifying the collateral is

simple when buildings with their separate and distinct uses are involved. It becomes more complex when office, residence, and/or retail stores, each with a separate risk or payback potential, share the same building. Many financial institutions are reluctant to make loans where there are a variety of risk scenarios in the same building. The concern is that the most risky activity may jeopardize the others.

Banks and financial institutions need to be able to feel more secure with the viability of mixed use projects and the stability of their investment. There needs to be an exploration of ways of minimizing the risk. The lead in carrying out that exploration must come from those most likely to benefit from this type of investment--transit agencies, local governments and local business community leaders. Several Florida transit agencies serve stations where development potential is high. These agencies should band together, and solicit the support of their state organization, the Florida Transit Association, and perhaps even the national organization, the American Public Transportation Association (APTA), and begin a dialogue with the others involved. The dialogue should include representatives from financial institutions and developers, both from Florida and other parts of the country that have experienced successful station area development. Being able to assuage the fears, and lower the perception of risk, of those lending the money would go a long way towards assisting station area development in Florida.

## COMMUNITY VISION AND FUTURE CONTEXT

How a community perceives itself and its future is extremely important for transit station area development. Florida communities have a great deal of information about themselves that can be expressed in maps and statistical compilations. Population distribution, demographic characteristics, land use and zoning conditions, property and building values, location of employment, travel patterns, distribution of educational, cultural, recreational, sports, medical and religious sites are but some of the factual data collected that provide a statistical cross section of the community at the present. What is much more nebulous, and certainly a topic that not all cities and towns have addressed, is what the future *should* be like.

A growing number of our cities and towns across the nation have carried out a process to establish what they desire as the future outcome of their community--a vision for the future. Unlike the statistical data of present conditions, the development of a future vision focuses on values of how the community should appear and what it will have to offer its residents. Some of the goals that have appeared in the process of developing a community vision have included:

- Adequate housing for all, and where possible close to work, shopping, and transportation.
- Reducing traffic congestion by placing housing and needed day-to-day activities close to one another, or with good access to transportation options, including public transit.
- Locating of major public facilities where they have good access by public transit as well as automobiles.
- Making neighborhoods more livable by increasing pedestrian circulation within them, and by providing transportation choices for trips to school, work, shopping, and recreation.
- Developing a hierarchy of places within the urban context which gives distinct functions to central cities, regional centers, and neighborhood centers, each linked to its surrounding area, and to the other central places within the system by both automobile and transit travel options.

An increased role for public transportation has emerged in almost every community vision developed across the country. A growing number of them also recognize the quality of life benefits that result from combining activities at transit stations and centers, and linking them effectively into adjacent neighborhoods with adequate sidewalks and paths.

***Recommendation 15. Local business and community leaders and organizations in each Florida metropolitan area should take the initiative to develop a process that will lead to the preparation of a Community Vision. The process should involve the widest possible range of community input, not be dominated by single interest groups, and be taken to grass roots neighborhood levels. The role of transportation as a tool in achieving the Vision should be emphasized in the process.***

The development of a Vision can provide a forum for the discussion of transportation issues, and transportation alternatives. It offers an opportunity to think collectively on identifying the problems and proposing solutions. One of the key advantages of discussing transportation during the Vision process is that it allows for relating transportation to the daily life patterns and needs of citizens, and offers an opportunity to share how transportation and neighborhoods can work together to create more livable places. If rail transit, or even improved bus transit, are in the community plans, this is the place to introduce station area development into the discussion. It is also the place to demonstrate how this has benefitted other cities across the land.

A likely outcome of the community visioning process will be a desire to have more public facilities, and better access to them, as well as improved access to jobs, housing, and shopping. Station area locations can facilitate both the former and the latter. A great many players enter into the locational decisions associated with building new homes, apartments and condominiums; in the corporate decision to locate and office; or in the coming together of many retailers in a major suburban mall, or downtown shopping precinct. However, the choice of where to build new public facilities is often left up to elected officials. Here they have an opportunity to act decisively.

***Recommendation 16. Encourage locating public facilities at transit station sites. Significant benefits result where public transportation options are available, including: lowered space requirements; reduced traffic congestion; better safety and security; and cost savings in terms of capital investment.***

Many urban communities have recently built, or are planning for, major public facility investments. These include convention centers, sports arenas and stadiums, performing arts centers, museums, libraries, and even hospitals and schools. Co-locating these facilities at transit stations can produce major cost savings. By enabling patrons to access a football stadium, ballpark, concert hall, convention center, etc. by transit, the amount of parking required can be significantly reduced. If enough trips can be diverted to transit, then demand for roadway capacity on the surrounding streets can also be reduced. Congestion, noise and other negative aspects of major event center traffic can be mitigated by providing a transit alternative.

An increasing number of metropolitan areas across the country have made decisions to locate major facilities in proximity to transit stations. In some cases, such as Baltimore and St. Louis, new stations have been opened to serve new sports venues. San Diego located Qualcomm Stadium (home of the Chargers), at a light rail station where as many as 25 percent of game patrons now use transit.

Portland, Oregon decided to locate its new convention center on the Eastside Max light rail line, and limited parking to only 80 spaces. San Diego and Baltimore also have located convention centers adjacent to rail transit stations. Hotel development has followed, and been accompanied by high density residential and mixed use retail at the same station site. In Seattle a new baseball park (Safeco Field) has been sited next to the existing (and soon to be replaced) Kingdome football stadium; both are within a short walk of King Street Station which will soon be served by Sounder commuter trains and light rail. Considerable redevelopment has been stimulated around this site because of the proximity of new transit services that will begin to be available in late 2000.

A growing trend in development at rail transit stations has been the clustering of moderate to high density residential activity. These concentrations support additional retail stores, and attract office employers as well. Numerous examples of this phenomenon exist around the country. More are appearing every year. Proximity to rail transit has been sited as a consumer benefit in advertisements for housing adjacent to stations from Atlanta, Baltimore, Dallas, Denver, Los Angeles, Portland, Sacramento, San Diego, San Jose, St. Louis and Washington, D.C. The trend in station area development is expected to continue. Nearly every issue of *Urban Land* published in the last three years has some reference of a station area development accomplishment.



## MAKING IT HAPPEN

Station area development is a reasonable expectation in Florida communities that either have, or are building or planning, rail transit. Some planned station area development has taken place in Miami where Metro Dade Transit, other local government agencies, and private developers and investors have successfully carried out projects at several Metrorail stations. Tri-Rail is pursuing projects at two stations on its commuter rail line linking Palm Beach, Broward, and Miami-Dade counties. Additional potential exists on both of these systems, on Metromover in downtown Miami, in Jacksonville where Skytrain serves eight stations, and in Tampa where work is underway on the Tampa-Ybor City Streetcar. Turning potential into the best possible real projects requires some effort. This research project, "Enabling Station Area Development," has been carried out to help in that effort.

The first product of this study, *Conditions of Successful Station Area Development*, has examined the benefits of station area development at a broad level. Transit operators benefit from increased ridership that results from the agglomeration of activity at stations. Residential concentrations are important trip generators. Employment locations, shopping centers, sports and cultural event centers can be important trip attractors. Community benefits result from improved accessibility options for travel, and from reduced roadway congestion as automobile trips are diverted to transit. Improved air quality is an important by product. Urban growth management strategies benefit by being able to channel higher density growth along certain key corridors where transit provides mobility. Station neighborhoods can be made more attractive and pedestrian friendly through good urban design. Developers and investors benefit from improved accessibility for residents, customers, and clients and by having a reduction in expensive parking construction. Development, redevelopment, and neighborhood preservation strategies are all beneficiaries of appropriate station area development. This technical memorandum outlines the factors that have made station area development a success. Numerous examples of successful station area development from rail transit systems around the country are included. This material can best be used to inform local communities about general and specific benefits of station area development.

The second technical memorandum, *Inventory of Florida Station Development Sites and Opportunities*, provides a thumbnail sketch of each of the existing and under construction rail transit stations in the state. Location, station area characteristics and land use, land and building values, availability of vacant land, possible opportunities, parking and transit services are all included in the data set for each station. An aerial photograph, and a set of ground photos of key or representative elements is provided. A summary of the most important of these elements is provided for each of the five systems (Tampa streetcar, Jacksonville Skyway, Miami-Dade Metrorail, Miami-Dade

Metromover, Tri-Rail commuter rail) in a table to enable interested parties of make quick comparisons of the potential. This information will be of particular interest to potential developers and investors, as well as to local planning agencies, and the neighborhoods around the stations.

The third component of the study, this document, *Florida Barriers to Station Area Development and Recommended Strategies for Overcoming Them*, is the result of examining conditions that have made station area development successful elsewhere, and the constraints that can deter success from happening in Florida. The constraints were identified in the process of visiting each of the station sites, and in examining the legal, statutory, and policy contexts in which station area development takes place in Florida and elsewhere. A series of recommendations are made in this document to facilitate successful station area development in this state. Some of these require legislative action, either at the state or local level. Others require changes in policy. It is important that these recommendations be adopted. In doing so, the potential quality station area development that will truly benefit all of the parties involved, can be realized in a quicker, and more beneficial manner.

The three documents are designed to be used as a set of tools to move station area development ahead in Florida. The first document provides the conceptual understanding of station area development and useful examples. The second lays out the dimensions of opportunity in Florida, probably larger than most would have anticipated, and provides a “hook” for attracting specific interests. The last document is an action plan for improving the process, and enabling the projects and dreams that will emerge from digesting the first two documents, to actually happen.

## USEFUL MATERIALS

Arrington, Jr. G.B. *Beyond the Field of Dreams: Light Rail Growth Management in Portland*. Tri-Met. March, 1995.

Association of Bay Area Governments and Bay Area Air Quality Management District. *Design Strategies for Encouraging Alternatives to Auto Use Through Local Development Review*. Undated.

BC Transit (Victoria, Canada). *Transit Friendly Subdivision and Development Guidelines*. Undated.

Bernick, Michael; Cervero, Robert and Gilbert, Jill. *Market Opportunities and Barriers to Transit-Based Development in California*. August, 1994.

Calthorpe Associates. *Transit-Oriented Design Guidelines*. City of San Diego. August, 1992.

Calthorpe Associates, Mintier & Associates. *Transit-Oriented Development Design Guidelines*. Sacramento County Planning & Community Development Department. September, 1990.

Cambridge Systematics, Inc., et al. *Making the Land Use, Transportation, Air Quality Connection, the LUTRAQ Alternative/Analysis of Alternatives, An Interim Report*. Prepared under the sponsorship of 1000 Friends of Oregon, October 1992.

Carter, John and Matthias, John. *Transit-Supportive Land Use in Montgomery County, Maryland*. Montgomery County Planning Department and Maryland-National Capital Park and Planning Commission. April, 1995.

City of Boca Raton. *Concurrency Management System Administrative Manual for the City of Boca Raton, Florida*, 1991.

City of Gresham, Oregon. *Community Development Department. Transportation System Plan. Transportation Land Use Standards Project*. November, 1994.

City of Los Angeles Planning Department and Los Angeles County Metropolitan Transportation Authority. *Land Use/ Transportation Policy, Feasibility Analysis and Recommendations for Implementations. Final Report and Appendix*. December, 1993.

City of Portland, Office of Transportation. *Designing Our Future: A Charrette at the Regional Rail Summit*. 1992.

City of San Diego. *Urban Village Overlay Zone*. July, 1995.

City of San Jose, Department of City Planning and Building. *Tamien Station Area Specific Plan*. March, 1995.

City of Vancouver and Clark County, Washington. *Transit Overlay District*. May, 1995.

*Creating Transit Supportive Regulations: A Compendium of Codes, Standards and Guidelines*. Compiled by the Municipal Research and Services Center of Washington. August, 1995.

Denver Regional Transportation District. *Creating Livable Communities: A Transit-Friendly Approach*. June, 1996.

*Development Incentives That Support Transit*. Center for Urban Transportation Research, University of South Florida, Tampa, 1994.

Florida Administrative Code, Chapter 9J-5, "Minimum Criteria for Review of Local Government Comprehensive Plans and Determination of Compliance." Tallahassee: Florida Department of Community Affairs, April 1992.

Gallagher, Mary Lou. "A Pyramid Along the Mississippi." *Planning*, June, 1991. pp. 13-15.

Greater Denver Chamber of Commerce, DRCOG and Regional Transportation District. *Suburban Mobility Design Manual*. February, 1993.

Guideway Transit and Intermodalism: Function and Effectiveness. *Case Study: Atlanta*. Center for Urban Transportation Research, University of South Florida, Tampa, Florida, 1996.

Guideway Transit and Intermodalism: Function and Effectiveness. *Case Study: Sacramento*. Center for Urban Transportation Research. University of South Florida. 1996.

Guideway Transit and Intermodalism: Function and Effectiveness. *Case Study: San Francisco*. Center for Urban Transportation Research. University of South Florida. 1997.

Guideway Transit and Intermodalism: Function and Effectiveness. *Case Study: South Florida*. Center for Urban Transportation Research. University of South Florida. 1997.

Hess, Stephen and Meyer, Paul I. Urban Land. *Santa Fe Depot-Relocating an Urban Development Plan*. April, 1994. pp. 62-64.

Los Angeles Metropolitan Transportation Authority. *Transit-Based Housing Symposium; Emerging Designs for Transit-Based Communities: Case Studies of Three Metro Stations*. April, 1993.

Maryland Department of Transportation, Mass Transit Administration. *Access by Design: Transit's Role in Land Development: A Developer's Manual*. September, 1998.

Metropolitan Dade County. Ordinance No. 78-74. Fixed-Guideway Rapid Transit System--Development Zone. Adopted October 17, 1978.

Metropolitan Transit Development Board. *Designing For Transit: A Manual for Integrating Public Transportation and Land Development in the San Diego Metropolitan Area*. July, 1993.

Montgomery County Planning Department; Maryland National Capital Park and Planning Commission. *Transit- and Pedestrian- Oriented Neighborhoods Design Study: A Strategy for Community Building in Montgomery County, Maryland*. March, 1993.

Morris, Marya (ed), *Creating Transit-Supportive Land Use Regulations*. Planning Advisory Service Report Number 468, American Planning Association, Chicago, 1996.

Palm Beach County, Department of Planning, Zoning and Building. "Mass Transit and Land Use Options, A Vision for Palm Beach County," (draft) June, 1993.

Pelham, Thomas G., "Adequate Public Facilities Requirements: Reflections on Florida's Concurrency System for Managing Growth," *Florida State University Law Review* 1993, vol. 73, 973-1052.

Regional Transportation Authority, Center for Neighborhood Technology. *Routes to Future Growth: Fostering Transit-Oriented Development in Northeastern Illinois*. February, 1995.

Regional Transportation Commission of Washoe County, Nevada. *Planning for Transit: A Guide for Community and Site Planning*. June, 1992.

Sacramento Regional Transit. *Transit Master Plan: Transit/ Land Use Coordination and Long Range Development*. April, 1992.

Salvesen, David. "Promoting Transit-Oriented Development," *Urban Land*, July, 1996. pp. 31-35.

Snohomish County Transportation Authority (SNO-TRAN). *A Guide to Land Use and Public Transportation. Volume II: Applying the Concepts*. December, 1993.

Southern California Association of Governments. *Prototype Transportation/ Land Use Ordinance and Report*. January, 1987.

Southern California Association of Governments. *Prototype Transportation/ Land Use Ordinance and Report*. January, 1987.

The Washington Regional Network for Livable Communities. *A New Approach: Integrating Transportation and Development in the National Capital Region*. Chesapeake Bay Foundation. May, 1994.

Tri County Metropolitan Transportation District of Oregon. *Planning and Design for Transit Handbook: Guidelines for Implementing Transit Supportive Development*. Portland, Oregon, January 1996.

Transit Cooperative Research Program. *The Role of Transit in Creating Livable Metropolitan Communities. TCRP Report 22*. National Academy Press. Washington, D.C. 1997.

Transit Cooperative Research Program. *Traffic-Friendly Streets: Design and Traffic Management Strategies to Support Livable Communities. TCRP Report 33*. National Academy Press. Washington, D.C. 1998.

Transportation Rule Working Group, Oregon Chapter of the American Planning Association. *Recommendations for Pedestrian, Bicycle and Transit Friendly Development Ordinances*. February, 1993.

## USEFUL CONTACTS

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